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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/807,435 | 03/24/2004 | Jungwon Kang | RPL-0031 | 5414 |
| 34610 | 7590 | 03/10/2006 | EXAMINER | |
| FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153 | | | WALFORD, NATALIE K | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2879 | |

DATE MAILED: 03/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/807,435 | KANG ET AL. | |
| | Examiner | Art Unit | |
| | Natalie K. Walford | 2879 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 5-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,14 and 16 is/are rejected.
- 7) ☒ Claim(s) 2, 15, and 17-22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 November 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election of Species II (claims 14-22, including generic claims 1-4) with traverse of a plasma display panel in the reply filed on November 1, 2005 is acknowledged. The traversal is on the ground(s) that the subject matter of each of the designated inventions is sufficiently related that a thorough search for the subject matter of each of the designated inventions would encompass a search for the subject matter of each of the remaining designated inventions, meaning that the search and examination of the entire application could be made without serious burden. This is not found persuasive because the search required for the different embodiments of the invention require different text searches. Although the classification may be similar, if not the same, the text search is different.

The requirement is still deemed proper and is therefore made FINAL.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid

Art Unit: 2879

abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Figure 9, item 415. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Figures 8a and 8b, items 314 and 316. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet

Art Unit: 2879

should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The disclosure is objected to because of the following informalities:

On page 8, phosphor layer 28 should be item 128.

Appropriate correction is required.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

Art Unit: 2879

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3, 4, and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1, 3, 4, and 14, the limitation of “opposite sides” is unclear as to what is being referred to. For examination purposes, the limitation “opposite sides” will be taken as the longitudinal sides of the ITO electrodes.

Regarding claim 3, the limitation of “vertical direction” is unclear as to what is being referred to. For examination purposes, the limitation “vertical direction” will be taken as the direction perpendicular to the longitudinal axis of the transparent ITO electrodes.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-4, 14, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakahara et al. (US 6,531,819).

Regarding claim 1, Nakahara discloses a plasma display panel in figure 6 including: transparent ITO electrodes (items X and Y) which are spaced in parallel to

Art Unit: 2879

each other at a predetermined distance within a discharge cell; metal electrodes (item 3) which are formed on the transparent ITO electrodes and in parallel to the transparent ITO electrodes so that are positioned in the direction of opposite sides of the transparent ITO electrodes, respectively.

Regarding claim 3, Nakahara discloses the plasma display panel of claim 1, wherein the metal electrodes are formed in the direction of a middle of vertical direction of the transparent ITO electrodes from the opposite sides of the transparent ITO electrodes, respectively (FIG. 6).

Regarding claim 4, Nakahara discloses the plasma display panel of claim 1, wherein a part of the metal electrodes is formed on the opposite sides of the transparent ITO electrodes (FIG. 6).

Regarding claim 14, Nakahara discloses a plasma display panel in figure 6 including: transparent ITO electrodes (items X and Y), which are spaced in parallel to each other at a predetermined distance within a discharge cell; metal electrodes (item 3) which are formed on the transparent ITO electrodes and in parallel to the transparent ITO electrodes so that are positioned in the direction of opposite sides of the transparent ITO electrodes, respectively; and projecting metal electrodes (item 4) which are jutted from the metal electrodes, respectively.

Regarding claim 16, Nakahara discloses the plasma display of claim 14, wherein the projecting metal electrodes are jutted from a middle portion of said metal electrodes, respectively (FIG. 6).

Allowable Subject Matter

Claims 2, 15, and 17-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 2, the reference of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 2, specifically for the limitation of the metal electrodes satisfying: $(d2) < (d1)/2$ wherein $d1$ represents distance from a central portion of the transparent ITO electrode to a central portion of the discharge cell, $d2$ represents distance from a central portion of the metal electrode to a central portion of the discharge cell.

Regarding claim 15, the reference of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 15, specifically for the limitation of the metal electrodes satisfying: $D < H/4$ wherein H represents a length of discharge cell, D represents a distance between a central portion of the metal electrode and a central portion of the discharge cell.

Regarding claims 17-22, claims 17-22 are objected to as being dependent upon a rejected base claims for the reasons given in claim 15 because of their dependency status from claim 15.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Su et al. (US 6,791,263) is cited to show auxiliary metal electrodes formed at a tip of projecting metal electrodes (FIG. 4A).

Art Unit: 2879

Lee et al. (Us 6,720,736) is cited to show metal electrodes formed in the middle of transparent ITO electrodes (FIG. 7)

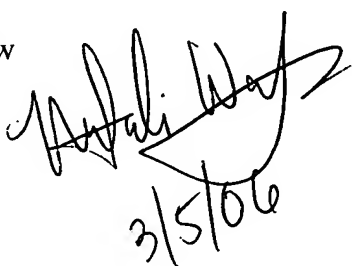
Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalie K. Walford whose telephone number is (571)-272-6012. The examiner can normally be reached on Monday-Friday, 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571)-272-2457. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

nkW



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